

REMARKS

The application has been amended and is believed to be in condition for allowance.

Claims 1-5 and 11-18 remain in this application.

Claims 6-10 and 19-20 have been canceled.

Claims 11 and 12 have been amended. The amendments find support in the specification and the figures (e.g., page 52, lines 19-22) and introduce no new matter.

New dependent claims 21-27 find support in the specification and the figures (e.g. page 17, lines 4-8; page 38, line 33 to page 39, line 4) and introduce no new matter.

The Official Action rejected claims 1, 3, 5, 6, 8, 10-12, and 18 under 35 U.S.C. 103(a) as being unpatentable over Great Britain Patent 931,710 (GB '710) in view of TANAKA (6,554,286).

The Official Action rejected claims 1-3, 5-8, 11, 12, 17 and 18 under 35 U.S.C. 103(a) as being unpatentable over KAWAGUCHI (5,286,039) in view of GB '710.

The Official Action rejected claims 4, 9, 13, 14, 16, and 20 under 35 U.S.C. 103(a) as being unpatentable over GB '710 in view of TANAKA and further in view of SAKAI (4,810,591).

The Official Action rejected claims 4, 9, 13-16, 19, and 20 under 35 U.S.C. 103(a) as being unpatentable over KAWAGUCHI in view of GB '710 and further in view of SAKAI (4,810,591).

Applicant does not dispute that gaskets exist in the prior art comprising a plurality of layers. The claimed invention, however, recites a metal-plated layer. The claimed invention further requires the metal-plated layer be configured to extend to surround each cylinder hole on the base plate annularly. The advantages provided by a metal-plated layer as recited in the claims improve the sealing effect of the gasket as outlined on pages 40-52 of the specification.

It is respectfully submitted that none of the references teach or suggest a metal-plated layer as recited by the claims for the reasons outlined below.

The Official Action states that GB '710 discloses a gasket comprising a metal base plate 10 with cylinder holes, coolant holes (e.g. near 13b), and annular beads 13. GB '710 discloses a metal layer (11, 12, or 16) on both surfaces of the base, especially around the beads. The Official Action states that the coatings can be considered "hard" and are the same materials required by the claims; that is, the material is a foil, which is considered a plating and can be applied with adhesive.

The Official Action concedes that GB '710 does not appear to disclose an outer peripheral bead totally surrounding the beads and coolant holes.

The Official Action states that TANAKA teaches a gasket having at least one base with cylinder holes, coolant holes,

annular beads, and an outer peripheral bead 2c totally surrounding the beads 2b and holes 2a and 2d. The Official Action further states that the outer bead has a slope cross-section, and that the plate also has a plated layer

It is respectfully submitted that neither GB '710 nor TANAKA, individually or in combination, teach or suggest a hard metal-plated layer (5) formed on at least one surface of said auxiliary plate as recited by claims 1 and 3. The hard metal-plated layer, for example, are made of nickel formed on peripheral portions of the respective cylinder holes 3d on both surfaces of the auxiliary plate 3 in accordance with an electroplating process or a molten metal plating process (page 17, lines 4-8; see also claims 21-23).

In contrast, GB '710 teaches soft metal sheets 11,12 on the surfaces of the core plate 10 of the gasket, and the sheets 11,12 bonded on the core plate only by one of i) soldering, ii) brazing, or iii) adhesive (page 1, lines 56-58; page 3, lines 35-40). There is no teaching or suggestion that any layers and plates 10,11,12 are metal-plated, nor any teaching or suggestion to apply the metal layers 11,12 on the core plate 10 by plating, as required by independent claims 1, 3, 11 and 12.

There is further no teaching or suggestion in TANAKA of a metal-plated layer. TANAKA discloses a metal base plate, and a metal reinforcement plate having a thickness smaller than that of the base plate and lapped with the base plate (column 2, lines

17-21; Figures 1-3). TANAKA does not teach or suggest a metal-plated layer as recited by either of claims 1 or 3.

Therefore, it is respectfully submitted that neither GB '710 nor TANAKA, individually or in combination, teach or suggest the hard metal-plated layer as recited by claims 1 and 3.

It is also respectfully submitted that neither GB '710 nor TANAKA, individually or in combination, teach or suggest the soft surface metal-plated layer as recited by claims 11 and 12 for the same reasons outlined above as to claims 1 and 3.

The Official Action states that KAWAGUCHI discloses a laminate metal gasket comprising at least two base plates 10 and 20 and an auxiliary plate 40 or 30. The Official Action concedes that KAWAGUCHI does not disclose metal layers on the plates. The Official Action states that GB '710 teaches coating layers of a laminate metal gasket with metal layers to improve the sealing function.

It is respectfully submitted that neither KAWAGUCHI nor GB '710, individually or in combination, teach or suggest teach or suggest a hard metal-plated layer formed on at least one surface of said auxiliary plate as recited by claims 1 and 3.

As stated above, GB '710 fails to teach or suggest a metal-plated layer.

KAWAGUCHI also fails to teach or suggest a metal-plated layer, as required by claims 1 and 3, the metal-plated layer configured to extend from a position more radially inward than

said annular bead to a position radially outward so as to overlap each of said annular beads of said base plate and to face a top portion of said annular bead, and thereby to surround each of said cylinder holes on said base plate annularly.

KAWAGUCHI discloses a gasket produced by laminating an upper plate 10, a regulation plate 30 laminated on the upper plate 10 with a bead shape matched with that of the upper plate 10, and an intermediate plate 40 (column 6, lines 45-53). KAWAGUCHI teaches the regulation plate may be produced by turn-up machining (column 5, lines 52-53). KAWAGUCHI further teaches regulation plate 30 extends over the whole area between base plates 10,20 (column 5, lines 28-35; Figures 1-3). KAWAGUCHI does not teach or suggest, in any of the specification or the figures, a metal-plated layer as recited claims 1 and 3.

Therefore, it is respectfully submitted that neither KAWAGUCHI nor GB '710, individually or in combination, teach or suggest the hard metal-plated layer as recited by claims 1 and 3.

It is also respectfully submitted that neither KAWAGUCHI nor GB '710, individually or in combination, teach or suggest the soft surface metal-plated layer as recited by claims 11 and 12 for the same reasons outlined above as to claims 1 and 3.

It is further respectfully submitted that SAKAI does not teach or suggest the soft surface metal-plated layers as recited by claims 11 and 12.

In contrast, SAKAE discloses a gasket having soft metal layers 14 on core plate 13 (column 1, lines 54-56) and enclosed by a pair of press rollers 23 (column 3, lines 5-10; Figure 3). Further, soft metal layers 14 extend on the whole area of surfaces of the core plate 13 (Figures 2 and 3).

Therefore, it is respectfully submitted that SAKAE does not teach or suggest the soft surface metal-plated layers as recited by claims 11 and 12.

For all the foregoing, it is respectfully submitted that claims 1, 3, 11, and 12, and claims depending therefrom, are patentable as presented. Reconsideration and withdrawal of the rejections of these claims are respectfully requested.

It is further respectfully submitted that GB '710 does not teach or suggest a metal gasket wherein distribution of an amount of a step of said hard metal-plated layer relevant to said plurality of cylinder holes corresponds to distribution of rigidity of said internal combustion engine, as recited by claim 5.

In contrast, GB '710 teaches the height of the annular beads may be changed corresponding to the fluid pressure in the holes surrounded by the beads (page 2, lines 76-86). There is no teaching or suggestion, either in the specification or the figures, of the step or thickness of the hard metal layer corresponding to a distribution of rigidity of the internal combustion engine.

Therefore, it is respectfully submitted that claim 5, in addition to depending from a patentable claim, is patentable as presented. Reconsideration and withdrawal of the rejection are respectfully requested.

From the foregoing, it will be apparent that applicants have fully responded to the September 17, 2007 Official Action and that the claims as presented are patentable. In view of this, applicants respectfully request reconsideration of the claims, as presented, and their early passage to issue.

In order to expedite the prosecution of this case, it is requested that the Examiner telephone the attorney for applicants at the number set forth below if the Examiner is of the opinion that further discussion of this case would be helpful.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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